VENTURI®

NEGATIVE PRESSURE WOUND THERAPY

TALLEY MEDICAL

VENTURI™ AVANTI / VENTURI™ COMPACT

Negative Pressure Wound Therapy Systems

User Manual

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TALLEY MEDICAL

Introduction

Thank you for choosing to use the VENTURI™ AVANTI / VENTURI™ COMPACT Negative Pressure Wound Therapy (NPWT) system from Talley Medical. In doing so you have selected an efficient, competitively priced product for the treatment of many wounds including pressure ulcers, dehisced surgical wounds, diabetic/ neuropathic ulcers, venous leg ulcers, post surgical wounds, sinus drainage and management, traumatic wounds and pre- and post-op flaps/grafts.

The VENTURI™ AVANTI / VENTURI™ COMPACT NPWT system offers a choice of continuous or intermittent therapy modes and features a lightweight, versatile vacuum power unit which benefits from dual-power technology, offering a seamless choice of mains or battery operation. The integral battery is charge-optimised, and provides long-lasting power back-up when needed. The battery operation option allows the system to function away from a mains power supply for extended periods of time, allowing the patient full mobility during therapy, if required (optional carry case with shoulder strap available).

NPWT is applied utilising the VENTURI™ wound care set which includes gauze (which is applied moistened with saline), a silicone drain and transparent adhesive film. A choice of flat or channel drains are available, together with a choice of gauze sizes, according to the wound type being treated.

The VENTURI™ AVANTI / VENTURI™ COMPACT NPWT system will benefit from careful installation and use, providing a long and effective service life. Please read this user manual in order to achieve the best possible results.

List of Components

Your VENTURI™ AVANTI / VENTURI™ COMPACT NPWT system should comprise the following items - please ensure you have all of these before installation.

- VENTURI™ AVANTI / VENTURI™ COMPACT vacuum power unit
- Mains lead with integral power supply
- Canister (supplied fitted to power unit):
  - capacity 600ml (VENTURI™ AVANTI); 300ml (VENTURI™ COMPACT)

ALSO AVAILABLE

- Wound Care Set - flat drain (standard)
- Wound Care Set - flat drain (large)
- Wound Care Set - flat drain (abdominal)
- Wound Care Set - channel drain
- 300ml/600ml canister complete with solidifier
- Bedside holder *(VENTURI™ AVANTI only)*
- Adhesive Gel Patch
- Y-connector
- Spare battery
- 12V Vehicle adaptor/charger
- Carry case*
- IV pole carrier*

* included as standard with VENTURI™ COMPACT

Cautions and Warnings

WARNING: Mains adaptor (if applicable) must be earthed.

Before using this product ensure that:

- the electricity supply (if applicable) is of the type indicated on the power unit
- the mains lead (if applicable) is free from damage and is positioned so as not to cause an obstruction
- the system is not used in the presence of flammable anaesthetics

Do not place power unit on or near a heat source.

Never use the mains adaptor/charging unit whilst placed on top of or near to material which is flammable or can be damaged by heat.

The equipment conforms to IEC 60601-1 for electromagnetic interference, however should the equipment be subjected to electromagnetic interference outside this then the unit should be reset. In the unlikely event of interference with other devices please consider moving the VENTURI™ AVANTI / VENTURI™ COMPACT power unit.

When the canister is not fitted on the VENTURI™ AVANTI / VENTURI™ COMPACT power unit it is essential that the aperture on the rear face of the unit (Fig. 1) is not blocked or covered (e.g. with a label). Refer to Service Manual for full details.

Figure shows VENTURI™ AVANTI. VENTURI™ COMPACT is similar

CAUTION! The medical professional is responsible for using his/her best medical judgement when using this system. Prior to use, the medical professional(s) treating the wound must assess how to best use the system for an individual wound.

Please see the VENTURI™ Clinical Guidelines Manual for indications and contraindications for use, together with further safety information.

How to Apply NPWT

NB. A wound care set must be used with the VENTURI™ AVANTI / VENTURI™ COMPACT system to carry out NPWT (see page 4 for available options). Please refer to the VENTURI™ Clinical Guidelines Manual for information on application of wound care sets and other clinical advice and safety information.

CAUTION! The medical professional is responsible for using his/her best medical judgment when using this system. Prior to use, the medical professional(s) treating the wound must assess how to best use the system for an individual wound.

1. Remove all packaging from the power unit.

How to Apply NPWT (continued)

2. If not already in place, attach canister to flat face of power unit by matching up the rear location pegs and rotating locking knob 1/4 turn clockwise to secure. Ensure canister is correctly located and secured otherwise NO CANISTER alarm will appear and power unit will not operate.

3. Prepare and seal wound as described in wound care set instructions.

4. Attach wound care set connection tubing to the VENTURI™ AVANTI / VENTURI™ COMPACT power unit canister by lining up locator stud on tubing connector with notch on canister tubing receptacle located on top corner of canister, twisting clockwise to lock.

5. OPERATING THE VACUUM POWER UNIT:

a) If using mains power, plug the smaller end of the power cable into the side of the VENTURI™ AVANTI / VENTURI™ COMPACT power unit, and the other end into mains outlet in wall.
NB. The battery will charge when the unit is connected to mains power (indicated by battery charge status icon on display screen scrolling from left to right) and provides automatic power back-up if mains power fails. It is recommended to use mains power when convenient to do so as this will ensure the battery is fully charged when needed.

b) Press RUN/STOP button to invoke and display STAND-BY mode (the power unit will beep and therapy mode, operating pressure and battery charge status will be displayed).

c) Power unit will default to continuous therapy mode at 80mmHg. To switch between continuous and intermittent therapy modes, press and hold the THERAPY MODE button until power units beeps to confirm change of mode. Adjust vacuum level if required using the UP and DOWN arrow buttons.

d) Press RUN/STOP button again to initialise and run the power unit.

NB. Vacuum level and therapy mode can be adjusted when in stand-by mode and for up to 1 minute after power unit is running. Power unit will automatically lock 1 minute after last button operation when running to prevent inadvertent operation of button functions (except MUTE), as indicated by 'L' on the display screen. Press and hold the UNLOCK button until power unit beeps if further button operation is needed. Display screen is only illuminated for a short period after button operation in battery mode.

6. Once power unit is running, observe the wound site. The dressing should contract noticeably, become firm to the touch and 'raisin-like'. If the dressing fails to contract, the dressing has not been completely sealed. Reinforce the dressing seal and/or adjust the drain and initiate suction again.

7. To change or remove dressing, unlock power unit (press and hold UNLOCK until power unit beeps), then press and hold the RUN/STOP button until power unit beeps three times to return to stand-by mode. Clamp wound care set tubing and remove by turning anticlockwise and lifting out of tubing receptacle on canister. Dispose of used wound care set according to local clinical waste policy. If required, apply new wound care set and continue NPWT.

How to Apply NPWT (continued)

8. Canisters should be replaced as required or weekly. To change canister, make sure power unit is in stand-by mode (if still running, press and hold the UNLOCK button, followed by the RUN/STOP button). Clamp connection tubing and remove by turning anticlockwise and lifting out of tubing receptacle (this can be reconnected to new canister and unclamped if wound dressing is not being changed). Remove sealing plug from its location on top corner of canister and use to cap tubing receptacle to seal in contents. Rotate locking knob 1/4 turn anticlockwise and remove canister. Dispose of used canister according to local clinical waste policy. If continuing NPWT, attach new canister and connect wound care set tubing as previously described.
9. To stop the power unit, press and hold the UNLOCK button until power unit beeps and 'L' clears from display screen. Then press and hold the RUN/STOP button until power unit beeps three times to return to stand-by mode. In battery operation the power unit will then power off after one minute of inactivity. If using mains power, switch off by disconnecting power cable from power unit or turning off mains power.
10. Place the user manual in a safe place for future use.

User Information

- The VENTURI™ AVANTI / VENTURI™ COMPACT power unit will automatically lock 1 minute after last button operation when running to prevent inadvertent operation of button functions (except MUTE), as indicated by 'L' on the display screen. Press and hold the UNLOCK button until power unit beeps if further button operation is needed (i.e. change of therapy mode or vacuum level, or returning power unit to stand-by mode). The power unit will lock again 1 minute after last button operation.

  Please note that when running, *the VENTURI™ AVANTI / VENTURI™ COMPACT* ***power unit must be unlocked before it can be returned to stand-by mode, i.e. the power unit cannot be put into stand-by mode when the 'L' is displayed on the screen.***

- During operation, the power unit should be placed upright on a horizontal surface with the display uppermost. The VENTURI™ AVANTI power unit can be placed in the optional metal holder for use at the bedside or attached to an IV pole using the optional bracket. The VENTURI™ COMPACT is supplied with a bracket for IV pole attachment. To allow patient full mobility during therapy, both power units can also be placed in the carry cases provided. In all instances the power unit/canister assembly should be kept upright during use to ensure correct operation. The VENTURI™ COMPACT will display a warning if the unit is over tilted.

User Information (continued)

BUTTON FUNCTIONS

RUN/STOP

Press to invoke stand-by mode prior to running power unit. Press again to run power unit. Press and hold whilst power unit is running (and unlocked) to cease operation and return to stand-by mode. In battery operation the power unit will then power off after one minute of inactivity. If using mains power, switch off by disconnecting power cable from power unit or turning off mains power.

VACUUM LEVEL

Vacuum level can be adjusted when in stand-by mode and for up to 1 minute after last button operation when power unit is running using the UP and DOWN arrow buttons. Pressure can be adjusted in 5mmHg increments between 10mmHg and 120mmHg according to treatment requirements, the most widely used being between 60-80mmHg. The power unit will begin operation at the default pressure of 80mmHg. The selected vacuum level is shown on the display screen.

THERAPY MODE

The VENTURI™ AVANTI / VENTURI™ COMPACT power unit offers a choice of continuous or intermittent therapy modes. On power-on, the power unit will default to continuous therapy mode. To switch between therapy modes, press and hold the THERAPY MODE button until power unit beeps to confirm change of mode. When in intermittent therapy mode, the power unit will provide vacuum therapy for periods of 5 minutes followed by a 2 minute rest period. The selected therapy mode is displayed on the power unit screen and can be altered in either stand-by or (unlocked) run modes.

MUTE

Press to silence alarm and to clear alarm display from display screen.

UNLOCK / LIGHT

The VENTURI™ AVANTI / VENTURI™ COMPACT power unit will automatically lock 1 minute after last button operation when running to prevent inadvertent operation of button functions (except MUTE), as indicated by 'L' on the display screen. Press and hold the UNLOCK button until power unit beeps if further button operation is needed (i.e. change of therapy mode or vacuum level, or returning power unit to stand-by mode). The power unit will lock again 1 minute after last button operation. Pressing this button will also illuminate the display screen for 10 seconds if power unit is in battery operation (screen will always be illuminated in mains operation).

USER SELECTABLE FUNCTIONS *(VENTURI™ COMPACT only)*

The following functions are selectable in a user menu:-

- Language selection
- Tilt alarm, switch on or off

User Information (continued)

- Internal contamination sensor, switch on or off
- Tube constriction alarm, switch on or off
- Battery inert. **Note that it is essential that the battery is put to this condition before international transportation.**

The menu is accessed by a three second press of the unlock key. The arrow key scrolls to the functions shown above, and the mode select key allows the function to be toggled on or off, or selected. For language selection, press and hold the mode key until the required language is displayed. Releasing the mode key will then set the display for the language.

Pressing the unlock key returns the device to standby mode.

IV POLE ATTACHMENT *(VENTURI™ COMPACT only)*

The VENTURI™ COMPACT is supplied with an IV pole bracket, to provide safe deployment and additional mobility.

- To fit the IV pole bracket, engage the three screws on the bracket into the corresponding three holes on the underside of the VENTURI™ COMPACT. The screws can be hand tightened, and do not require high torque or a tool.
- The fit the bracket with VENTURI™ COMPACT attached, use the black hand knob to secure it to the vertical IV pole. The bracket will fit to IV poles between 19mm and 26mm diameter.
- When dismounting the IV pole bracket from VENTURI™ COMPACT, note that the three screws are captive, and will remain on the bracket when unfastened to prevent their loss.

An IV pole attachment bracket is available as an optional accessory for the VENTURI™ AVANTI. Instructions for its use are included with the part.

Battery Information

- A fully charged battery should operate the power unit continuously for at least 24 hours.
- Charge status is shown on the display of the power unit when it is in stand-by and run mode.
- As the batteries are automatically charged as required when the system is operating on mains power, the battery module should not require removing or changing in normal use.

Battery Information (continued)

- Use only the mains cable or optional vehicle adaptor supplied with the system.
- When power unit operation times are noticeably shorter than normal, it is time to replace the battery pack.
- Never use any battery pack that is damaged or worn out. Use the battery pack only for its intended purpose.
- ***For VENTURI™ AVANTI only***: Because it is removable, the battery pack is short circuit protected. Accidental short circuiting can occur when a metal object (coin, clip or pen etc.) causes direct connection of the gold contacts on the side of the battery pack), for example when you carry a spare battery in your pocket or purse. If the battery does become short-circuited the internal resettable fuse will reconnect the circuit after about 30 seconds.
- ***For VENTURI™ AVANTI only***: Leaving the battery in hot or cold places, such as in a closed car in summer or winter conditions, will reduce the capacity and lifetime of the battery pack. Always try to keep the battery between 15°C and 25°C (59°F and 77°F). The capacity is particularly limited at temperatures below -10°C (14°F).
- Do not dispose of the battery pack in a fire, or in municipal waste. It should be recycled, disposed of properly or returned to your dealer for disposal in accordance with the WEEE directive.
- The battery pack is not serviceable and should be replaced if faulty (indicated by 'O/C Batt' fault displayed in place of battery charge status icon).

CHARGING THE BATTERY

If not fully charged, the battery will automatically charge when the power unit is plugged into mains power. The battery will charge at the optimum level depending on history of previous mains power usage and charging over the previous week.

REPLACING THE BATTERY (*for VENTURI™ AVANTI only*)

Should it be necessary to replace the battery, unfasten the battery cover screw and detach the cover. The battery module will drop out from its installed position. Replace the battery pack; note it can only be engaged in only one orientation. Replace the cover and re-fasten the screw. Do not over tighten.

NB. For VENTURI™ COMPACT, the battery is installed inside the unit and is not accessible by users. Battery replacement should only be carried out by qualified service personnel.

Care and Maintenance

POWER UNIT

Always disconnect the VENTURI™ AVANTI / VENTURI™ COMPACT power unit from the electricity supply (if applicable) before cleaning. The power unit can be wiped down with a damp cloth or alcohol wipe. Do not use solvents. CAUTION: Do not immerse in water.

The unit contains no user serviceable parts, and should only be serviced by a competent electrical technician, or returned to Talley Medical or your local authorised dealer. All Talley Medical products should be serviced regularly by Talley Medical or authorised dealer in order to comply with warranty conditions.

NOTE: Before returning equipment to Talley Medical for service, be sure that it has been properly cleaned and disinfected.

CANISTERS

Canisters are disposable and intended for single use only.

Warning and Fault Alarms

All audible alarms can be silenced by pressing the MUTE button once. Should any fault occur, press the MUTE button to reset the power unit. If fault remains/re-occurs, contact Talley Medical.

WARNING ALARMS

No Canister – will alert if canister is missing or is not correctly fitted. The power unit will fail to operate whilst this warning is displayed. Check that canister is correctly located and secured, as detailed on page 5.

No Battery – will display if battery is not correctly fitted. The power unit will only operate using mains power whilst this warning is displayed. Check battery installation (NB. battery can only be engaged in one orientation).

Low Battery (only appears during battery operation) – the power unit will continue to run whilst this warning is displayed. Press the MUTE button to silence/clear alarm. Plug into mains power to charge.

Canister Full – will alert to warn that the canister has reached its capacity and should be changed. The power unit will cease to run and the visual/audible alarm will continue until the RUN/STOP button is pressed or the canister is removed, both of which cancels the alarm and returns the power unit to stand-by mode. Change canister as detailed on page 7.

NB. The audible 'Canister Full' alarm can be silenced by pressing the MUTE button, however if the canister is not removed/changed the audible alarm will reoccur after 10 minutes.

Warning and Fault Alarms (continued)

Low Vacuum – will alert if vacuum pressure falls below minimum allowable levels. Power unit will continue to run whilst this warning is displayed. Check that wound dressing is completely sealed and that all tubing connections are secure. Press the MUTE button to silence/clear alarm. Note that alarm will reoccur if fault persists. If fault re-occurs, contact Talley Medical.

Tube Constriction – this warning activates when pump demand abruptly ceases. Note that a certain level of flow in the drain is required for the alarm to be active. The warning will occur for example in the case of a blocked tube, kinked tube or if the dressing is obstructed. Note that the tube constriction alarm can be selected on or off as required (see 'User Selectable Functions' on page 8). Default is on.

Tilt Alarm (*VENTURI™ COMPACT only*)– this warning activates when the device is in active mode and is placed at an angle that could affect the canister full indication. The alarm delays for 5 seconds, and is self muting when the unit is returned to upright. Note that the tilt warning alarm can be selected to be on or off as required (see 'User Selectable Functions' on page 8). Default is on.

FAULT ALARMS

O/C Batt (will appear instead of battery charge status icon) – indicates that the battery cannot be used as it is unable to take a charge. The power unit will only operate using mains power whilst this warning is displayed. Contact Talley Medical to order a replacement battery.

CCT Fail (will appear instead of battery charge status icon) – indicates that the charging facility is not functioning due to a PCB fault. The power unit will only operate using mains power whilst this warning is displayed. If fault remains/re-occurs, contact Talley Medical.

If any of the following faults are displayed the power unit will cease to operate:- PUMP FAULT; TRIAC FAULT; PUMP OPEN; PUMP SHORT; RELEASE KEY; BATTERY FAULT. Should any of these faults occur, press the MUTE button to reset the power unit. If fault remains/re-occurs, contact Talley Medical.

EMI Fault – indicates that the unit detects the pressure sensor amplifier is adversely affected by external RF fields. The power unit will continue to run whilst this warning is displayed. Press the MUTE button to silence alarm. This alarm will clear when interference ceases.

The VENTURI™ AVANTI / VENTURI™ COMPACT power unit may also display the following information:-

- Service due - Contact Talley Medical to arrange service
- Uncalibrated - Contact Talley Medical for recalibration

The power unit will continue to run whilst these warnings are displayed.

If you have any queries relating to this system please contact Talley Medical or your local authorised dealer.

Specification

POWER UNIT	VENTURI™ AVANTI	VENTURI™ COMPACT
Model Ref:	Venturi v.II TG600/07	Venturi v.II TG600/08
Construction:	Flame retardant ABS	Flame retardant ABS
Dimensions:	210mm x 205mm x 105mm	161mm x 155mm x 90mm
Weight:	2.2 kg	1.0 kg
Mains Cable:	3 metres	3 metres
Mains Input Voltage:	230V +/- 10% 50Hz	230V +/- 10% 50Hz
Operating Voltage:	6V	3.7V
Peak Current:	850mA RMS	450mA RMS
Max. Load Wattage:	7W	12W
Vacuum Application:	Continuous (default therapy) or intermittent	Continuous (default therapy) or intermittent
Pressure Range:	10 to 120mmHg	10 to 120mmHg

CANISTER		
Construction:	ABS Trans smoked grey, textured (includes 1 x 8g dissolvable sachet of desiccant)	
Dimensions:	212mm x 204mm x 32mm	156mm x 163mm x 45mm
Capacity:	600ml	300ml

Talley Medical products are manufactured to comply with BSI, IEC, UL and other European safety standards. Talley Medical design and manufacture products to conform to the requirements of ISO9001:2008, ISO13485:2003 and Directive (93/42/EEC) Annex II (excluding Section 4).

Talley Medical reserves the right to modify the specification of any product without prior notice in line with a policy of continual product development. Our standard terms and conditions apply.

EXPLANATION OF LABEL SYMBOLS AND STATEMENTS

ATTENTION Consult accompanying documents

Medical Devices Directive 93/42/EEC

Electrical Protection Type B

Class II Equipment (Double Insulated)

Do not dispose of with the normal household waste

WARNING This is a statement that alerts the user to the possibility of serious injury or other adverse reactions with the use or misuse of the device

CAUTION This is a statement that alerts the user to the possibility of a problem with the system associated with its use or misuse

Notes

Notes

USER MANUAL PART NUMBER 50-02-15-108/D2

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